

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Rec'd J/PTO

04 MAR 2004

REC'D 11 NOV 2004



WIPO/526/20

Applicant's or agent's file reference 151136/OS/BF	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NO 02/00318	International filing date (day/month/year) 10.09.2002	Priority date (day/month/year) 10.09.2002
International Patent Classification (IPC) or both national classification and IPC H04B1/74		
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 2 sheets.

## 3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  07.04.2004	Date of completion of this report  10.11.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Russo, M  Telephone No. +49 89 2399-6052 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NO 02/00318**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-7 as published

**Claims, Numbers**

1-2 received on 28.10.2004 with letter of 21.10.2004

**Drawings, Sheets**

1/2-2/2 as published

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☒ the claims, Nos.: 3-5
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NO 02/00318**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-2
	No: Claims	
Inventive step (IS)	Yes: Claims	1-2
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-2
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NO02/00318

**Re Item V**

Reference is made to the following documents:

- D1: WHITE PAPER: 'Automatic Protection Switching on the CBX 500 and GX 550 Multoservice WAN Switches' LUCENT TECHNOLOGIES, INC., August 2001 (2001-08), XP002239095
- D2: US-B1-6 294 991 (BENGSTON LEE ET AL) 25 September 2001 (2001-09-25)

1. The invention described in independent claim 1 of the present application consists of a system for supervising link fault in a network connection between two nodes, comprising an active and a spare link.
2. D1, regarded as being the closest prior art, discloses on pages 1-4 such a system, comprising the features included in the preamble of claim 1.
3. In order to reduce the rate of false alarms and avoid the trap of reporting faults occurring simultaneously on both termination boards with different alarm signal transmission times, the line termination boards are adapted to spontaneously report faults, a link supervision block is adapted to store fault causes and correlate the most recently received ones, and a persistency timer is adapted to supervise the persistence of a correlation result so that a switchover to the non-faulty board is requested only in the case that the correlation result has not disappeared during a persistency timer period.

These features are available to the man skilled in the art from D2, in particular columns 4-6 and abstract. The skilled man is therefore well aware of their effects and possible advantages.

4. Neither D1 nor any of the documents cited in the International Search Report, though, suggests using another persistency timer to determine the seriousness of the fault before performing the computationally demanding fault correlation. Such persistency check ensures that random fluctuations are not mistaken for faults.

The solution proposed in claim 1 of the present application is therefore considered new and involving an inventive step (Article 33(2) and (3) PCT).

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/NO02/00318

5. Claim 2 is dependent on claim 1 and therefore fulfills as well the requirements of the PCT regarding novelty, inventiveness and inventive activity.
6. Attention is drawn to the fact that the description is inconsistent with the claims, in that claim 1 contains features of both embodiment one on page 5 and embodiment two on page 6 .